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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,859	03/08/2004	Jonathon C. Stiff	2059/US/2	2439
20686	7590	10/13/2005	EXAMINER	
DORSEY & WHITNEY, LLP INTELLECTUAL PROPERTY DEPARTMENT 370 SEVENTEENTH STREET SUITE 4700 DENVER, CO 80202-5647			CUNNINGHAM, TERRY D	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 10/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

**Office Action Summary**

Application No.

10/796,859

Applicant(s)

STIFF ET AL.

Examiner

Terry D. Cunningham

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Summary of changes in this action***

1. The objection to the drawings has been overcome.
2. The objection to the specification has been overcome.
3. The indefiniteness rejection has been overcome.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10-19 are rejected under 35 U.S.C. § 112, first paragraph, as based on a disclosure which is not enabling. Transistors M3, M6 and M8-M10 are deemed critical or essential to the practice of the invention but are not included in the claims. An arrangement lacking these features is not enabled by the disclosure since it cannot be understood from the specification how the circuit will operate without such. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

Examiner has fully considered Applicant's remarks for the above rejection and has not found them to be persuasive. With regard to Applicant's first point, the basis for this assertion is that one skilled in the art would understand from the specification that these elements are required for the circuit to operate. With respect to Applicant's second point, if the intent is that the claims recite a different embodiment, the claims still fail to recite sufficient elements or structure for the circuit to operate as would be understood by one skilled in the art. And with

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respect to Applicant's third point, while critical elements can be circuitry expressly disclosed as such, circuitry understood by one skilled in the art to be critical is also critical.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosono et al. (USPAP 2001/0022527).

With respect to claims 1-4, the reference to Hosono et al. discloses, in Fig. 1, a circuit comprising: “a positive feedback loop (4a) coupled with a floating current mirror (Q51 and Q52)”; and “a negative feedback loop (Q54 and Q54), all connected and operating similarly as recited by Applicant..

With respect to claim 6 is, clearly the above circuit to Hosono et al. will provide the recited method.

Claims 10-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's prior art Fig. 1. Applicant's prior art Fig. 1 discloses “a current mirror including a first transistor (M5) and a second transistor (M4)”; “at least one resistor (RL) defining a voltage node (nbias)”; “a pull-down transistor (M1)”; and “an output transistor (M2)”, all connected and operating similarly as recited by Applicant.

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*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosono et al. (USPAP 2001/0022527). In the above discussed circuit of Hosono et al., such discloses bipolar transistors instead of MOSFET transistors. However, it is notoriously well known that bipolar transistors and MOSFET transistors are art recognized equivalents. Additionally, MOSFETs have the notoriously well-known advantage of reduced power consumption. Therefore, it would have been obvious for one skilled in the art to use MOSFET transistors in place of the bipolar transistors due to well-known equivalence and to obtain the expected result of reduced power consumption.

Examiner has fully considered Applicant's remarks for the above rejection and has not found them to be persuasive. The specification does not expressly define the phrases "transistor threshold voltage" and "drain saturation voltages". Also, these phrases do not have well defined values in the art. On the contrary, a "transistor threshold voltage" and "drain saturation voltages" are well known to represent a wide range of values. Clearly, the "minimum supply voltage of the reference to Hosono is "approximately the sum of" some arbitrary "transistor threshold voltage" and some arbitrary "drain saturation voltages". Thus, giving the language

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concerning the “minimum supply voltage” its broadest reasonable interpretation, the applied references are seen to meet the claim language.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terry Cunningham whose telephone number is 571-272-1742. The examiner can normally be reached on Monday-Thursday from 7:30 to 6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC  
October 11, 2005

  
Terry D. Cunningham  
Primary Examiner  
Art Unit 2816